

Description of a new species of *Calliostoma* (Gastropoda: Trochidae) from the Philippine Islands

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ABSTRACT. *Calliostoma dedonderi* n.sp. is described and compared with similar *Calliostoma* species from the Philippines area and from Japan.

RÉSUMÉ. *Calliostoma dedonderi* n.sp. est décrite et comparée avec des espèces analogues de *Calliostoma* des Philippines et du Japon.

INTRODUCTION

A few month ago, Fernand De Donder, a well known shell collector who use to travel all around the Philippine Islands, entrusted me with some *Calliostoma* specimens. At first sight, it seemed to me that they could be *Calliostoma suduirauti* Bozzetti, 1997. But further studies showed these shells were different and had to be considered as new to science.

Abbreviations.

Repositories

IRSNB : Institut royal des Sciences naturelles de Belgique, Bruxelles.

MNHN : Muséum national d'Histoire naturelle, Paris.

NSMT : National Science Museum, Tokyo.

Others abbreviations

D : diameter.

H : height.

P1, P2, P3, ... : primary cords (P1 is the most adapical).

S1, S2, S3, ... : secondary cords (S1 is the most adapical).

dd : no live-taken specimens present in sample.

lv : live-taken specimens present in sample.

SYSTEMATICS

Family TROCHIDAE Rafinesque, 1815

Subfamily CALLIOSTOMATINAE Thiele, 1924

Genus *Calliostoma* Swainson, 1840

Type species: *Trochus conulus* Linnaeus, 1758 (subsequent designation Herrmannsen, 1846) - Mediterranean sea.

Calliostoma dedonderi n.sp.

Figs 1-3

Type material.

Philippine Islands, Bohol, Balicasag Island, 140 m deep, fished by tangle nets, holotype IRSNB (I.G. 29.060 / 489), 9.8x7.3 mm (lv); paratype MNHN, 10.5x7.6 mm (lv); paratype NMST, 8.9x7.5 mm (lv); paratype, 10.5x7.7 mm (dd), in the author's collection; paratype, 9.4x7.3 mm (lv), collection F. De Donder.

Other material.

Philippine Islands, Bohol, Balicasag Island, 140 m deep, 5lv and 6 dd specimens, coll. F. De Donder; Bohol, Panglao, 100 m deep, fished by tangle nets, 2 lv and 2 dd, coll. F. De Donder.

Description.

Shell rather small (height up to 10.5 mm, width up to 7.7 mm), trochoidal in shape; spire high, almost conical, 2.16x to 2.89x higher than aperture, apical angle from 56° to 62°, anomphalous.

Protoconch of one and half whorl, covered by reticulate network of fine ridges. Apical fold rounded, terminal varix weak.

Teleoconch of 7 whorls, bearing spiral cords. Suture visible, not canaliculated. First whorl of teleoconch convex, sculptured by three granular primary cords; suprasutural cord P3 strongest and isolated from the two gathered subsutural ones P1 and P2; whorl slightly shouldered at P2; beads of cords more or less rounded, isolated; axial riblets connecting granules of cords. Second whorl becoming flat sided, with the

* Melsbroeksestraat, 21, 1800, Vilvoorde-Peutie, Belgium.

three beaded cords evenly distributed; P1 and P2 of same size, with beads rounded, well separated; beads of suprasutural cord P3 also well separated, sharp and stronger than those from P1 and P2. Subsequent whorls flat. On third whorl, some (about one for two) beads of the third cord P3 become stronger and sharper; P4 appears clearly above suture, more or less similar in size as P1 and P2; beads close packed; axial riblets becoming obsolete. Axial riblets disappearing on next whorls; space between cords fairly smooth, smaller than cords themselves. On fourth whorl, P3 becoming very strong and prominent; acute beads tends to be bigger and more distant (from 3 to 5 beads); all other beads rounded; P4 weaker than P3 but stronger than P1 and P2. On two last whorls, secondary adapical cords S1 and S2 appears respectively under two primary P1 and P2; on big specimens, S4 appears under P4; acute beads of P3 becoming blunt; difference in size between beads of the cord becoming weaker, cord keeping crenulate. Last whorl showing angulate periphery,

with strong keel made by two last cords; S1 becoming almost as large as P1; S2 keeping thin appearance
Aperture subquadrangulate, slightly lirate within; outer lip thin at rim, with angle on right low part; inner lip thicker. no parietal inductura visible. Columella weakly arched, smooth; callus closing wholly umbilicus. Base flat, with 9 or 10 smooth spiral cords encountered by fine axial threads, giving cords weak subgranular appearance; space between cords of same size than cords or a little smaller.
Colour of protoconch whitish. Two first whorls of teleoconch pink or reddish brown Ground colour of next whorls cream, with reddish-brown axial flammules; P3 and P4 whitish, with brown or orange dashes on P3 and orange spots on P4. Inside of aperture nacreous. Base slightly lighter; cords with regular orange or brown dashes; umbilical area white.
Operculum corneous, multispiral with central nucleus.

character	n	range	mean	standard deviation
H	13	8.9 – 10.5	9.50	0.53
D	13	6.8 – 7.7	7.28	0.25
H/D	13	1.19 – 1.39	1.31	0.06

Table 1. - *Calliostoma dedonderi*. Shell measurements in mm (Balicasag and Panglao)

Discussion

Calliostoma dedonderi n.sp. resembles *C. suduirauti* Bozzetti, 1997 (Figs 4-5), but *C. suduirauti* differs from the new species by having similar pointed beads of the same size on the penultimate abapical cord, by lacking the suprasutural cord under the main cord, by having 5 subequal cords above the same main cord (and not 4 of different size) and by a partially closed umbilicus; the new species is also smaller. *C. katoi* Sakurai, 1994 (Figs 6-7) seems also similar, but it is taller, has an umbilicus, bears smooth, not granular, cords and the penultimate abapical cord is smooth. The new species can resembles also *C. sagamiensis* Ishida & Ushida, 1977 (Figs 8-9), but the latter lacks on intermediate whorls the suprasutural cord under the strongest cord, this cord has no intermediate beads between the moderately sharp beads and has the others 5 cords smooth, except the subsutural one which is subgranular. *C. paucicostatum* Kosuge, 1984 (Figs 10-11) may also be compared to the new species, but all its beads are sharply acute and similar in size.

Etymology.

The new species is named after my friend Mr Fernand De Donder, well known shell collector.

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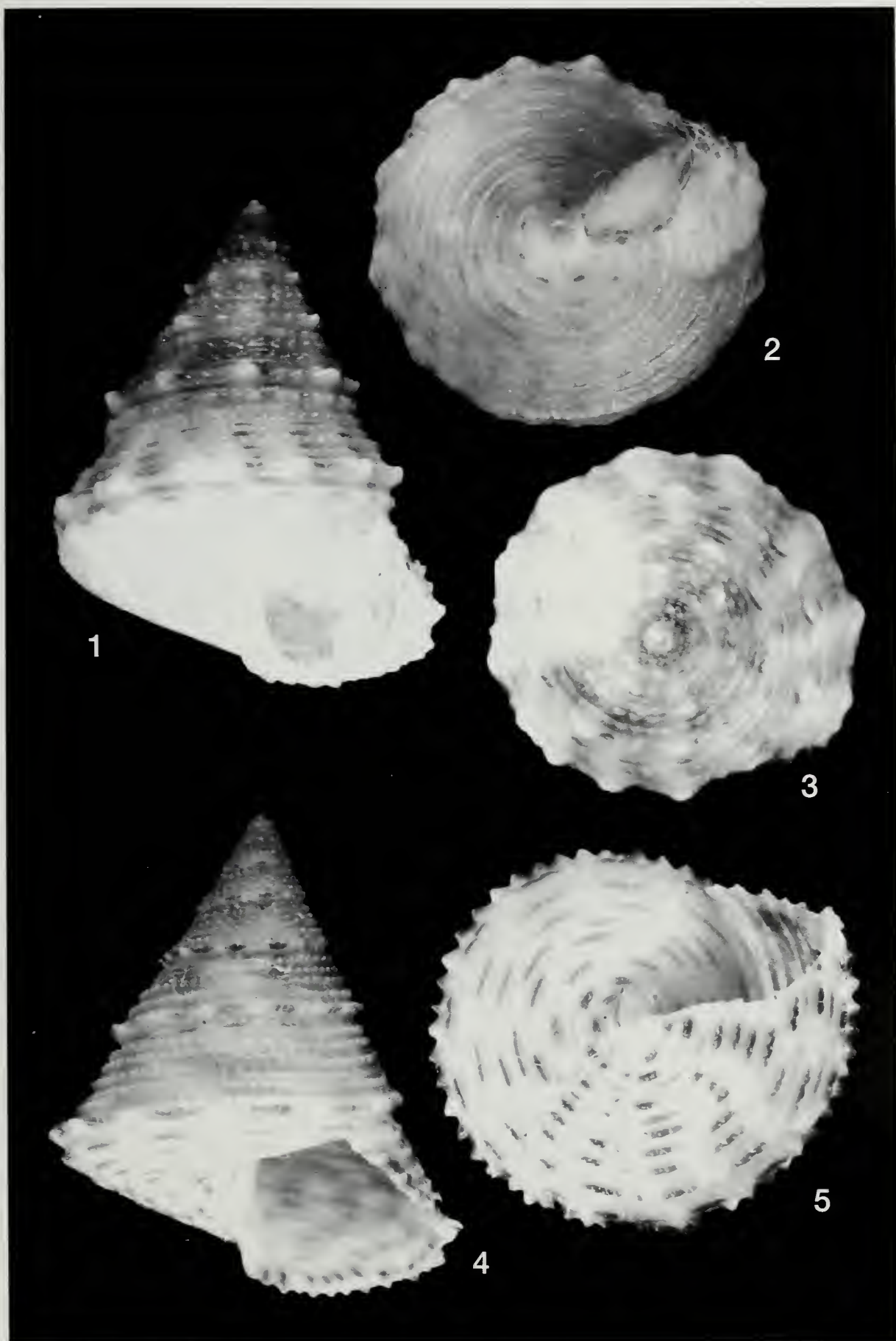
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Figures 1-5

1-3. *Calliostoma dedonderi* n.sp., holotype IRSNB (I.G. 29.060/489), Philippine Islands, Bohol Is., Balicasag, 9.8x7.3 mm.

4-5. *Calliostoma suduirauti* Bozzetti, 1997, Philippine Islands, Aliguay Is, coll. F. De Donder, 14.6x12.4 mm.



Figures 6-11

6-7. *Calliostoma katoi* Sakurai, 1994, holotype NSMT (ex collection Sakurai), Japan, Kochi prefecture, Okinoshima Islet, 13.1x11.2 mm.

8-9. *Calliostoma sagamiensis* Ishida & Ushida, 1977, holotype NSMT, Japan, Miura Peninsula, Sagami Bay, off Jôgashima, 8.7x6.3 mm.

10-11. *Calliostoma paucicostatum* Kosuge, 1984, holotype Institute of Malacology of Tokyo, Philippine Islands, Cebu, Mactan, Punta Engano, 19.2x18 mm.

